FROWEIN GmbH & Co. KG

Revision date: 31.03.2009 Revision no.: 1,02

DETMOL-CY 00434-0034

1. Identification of the substance/preparation and of the company/undertaking

Identification of the substance or preparation

DETMOL-CY

Use of the substance/preparation

Pesticide

Company/undertaking identification

FROWEIN GmbH & Co. KG

Am Reislebach 83 D-72461 Albstadt

Telephone ++49 (0) 74 32-956 - 0 Telefax ++49 (0) 74 32-956 - 138

Contact person Inquiry office

Responsible for the safety data sheet: sds@gbk-ingelheim.de

2. Hazards identification

Classification

Indications of danger: Irritant, Dangerous for the environment

R-phrases:

May cause sensitization by skin contact.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. Composition/information on ingredients

Chemical characterization

(Mixture)

Emulsion, oil in water Active substance: Pyrethroid

Hazardous components

EC-No.	CAS-No.	Chemical name	Quantity	Classification
		Solvent naphta (petroleum)	9 %	F, Xn, Xi, N R11-37-51/53-65-66-67
269-855-7	68359-37-5	cyfluthrin (ISO)	5 %	T+, T, N R28-23-50-53

Full text of each relevant R phrase can be found in heading 16.

4. First aid measures

General information

Remove contaminated soaked clothing immediately.

If you feel unwell, seek medical advice.

Take away from danger area and lay down affected person.

In case of the person being unconscious put him/her in a stable side position.

After inhalation

Move to fresh air in case of accidental inhalation of fumes from overheating or combustion.

In the event of symptoms refer for medical treatment.

After contact with skin

Wash off immediately with soap and plenty of water.

Treat subsequently with skin cream.

Seek medical treatment immediately.

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After contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Remove contact lens.

Seek medical treatment by eye specialist.

After ingestion

Do not induce vomiting.

Rinse mouth.

Seek medical treatment immediately.

Induce vomiting only upon the advice of a physician.

Advice to doctor

The following symptoms may occur:

Local effects: Paraestesia of skin and eyes, that can be strong, mostly temporary and reversible within 24 hours, irritant, affecting the conjunctivae (eye) and respiratory mucosa, cough

Systemic effects: Pectoral disorders, bronchial hypersecretion, pulmonary oedema, tachycardia, low blood pressure, palpitations, vomiting, diarrhoea, abdominal pain, nausea, ptyalism, vertigo, fuzzy sight, headache, apathia, anorexia, somnolence, coma, spasms, cramp attacks, tremor, ataxia, muscular fasciculation

This product does not contain any pyrethroide. Should NOT be confused with organic phosphorous compounds!

Local treatment: After eye contact: Instil local anaesthetic such as 1% amethocaine hydrochloride eye drops. If necessary, administer an analgesic.

Systemic treatment: Endotracheal intubation and stomach lavage followed by administration of charcoal and sodium sulphate. Respiration and heart monitoring. Anticonvulsive therapy: Diazepam is the drug of choice; barbiturates e.g. phenobarbital and calcium gluconate may also be used. No specific antidote known. Contraindication: atropine. Adrenaline derivatives are contra-indicated. Spontaneous recovery.

5. Fire-fighting measures

Suitable extinguishing media

Foam, carbon dioxide (CO2), dry chemical, water-spray., Sand

Extinguishing media which must not be used for safety reasons

Full water jet

Special exposure hazards arising from substance or preparation itself, combustion products, resulting gases

Fire may produce:

Carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx).

Hydrogen chloride (HCI), Hydrogen fluoride (HF), Hydrogen cyanide (HCN)

Special protective equipment for fire-fighters

Wear self-contained breathing apparatus and protective suit.

Additional information

Cool containers at risk with water spray jet.

Do not release chemically contaminated water into drains, soil or surface waters. Sufficient measures must be taken to retain water used for extinguishing.

Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

6. Accidental release measures

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Personal precautions

Ensure adequate ventilation.

Use personal protective clothing.

Avoid contact with skin, eyes and clothing.

Remove persons to safety.

Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

Methods for cleaning up/taking up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).

Shovel into suitable container for disposal.

Additional information

Clean contaminated surface thoroughly.

7. Handling and storage

Handling

Advice on safe handling

Do not breathe vapours or spray mist.

Keep container tightly closed.

Avoid contact with skin, eyes and clothing.

Advice on protection against fire and explosion

No special protective measures against fire required.

Storage

Requirements for storage rooms and vessels

Keep container tightly closed in a dry, cool and well-ventilated place.

Keep from freezing.

Avoid temperatures above 50°C.

Further information on storage conditions

Keep away from food, drink and animal feeding stuffs.

Storageclass (VCI)

12

8. Exposure controls/personal protection

Exposure limit values

Exposure controls

Occupational exposure controls

Ensure adequate ventilation, especially in confined areas.

Protective and hygiene measures

Do not breathe vapours or spray mist.

Wash hands before breaks and immediately after handling the product.

When using, do not eat, drink or smoke.

Take off immediately all contaminated clothing.

Avoid contact with skin, eyes and clothing.

Respiratory protection

Use protective face mask with A2-P3 filter when spraying.

Hand protection

Use multipurpose protective gloves (plant protection) when spreading/handling the product.

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Eye protection

Tightly fitting goggles

Skin protection

Wear standard protective suit (plant protection) when spreading/handling the product.

9. Physical and chemical properties

General information

Physical state Liquid
Colour White
Odour Aromatic

Important health, safety and environmental information

Test method

Changes in the physical state

Melting point - 1 °C
Boiling point approx. 100 °C
Flash point n.a.

Flammability

Lower explosion limits n.a.

Upper explosion limits

Ignition temperature > 600 °C
Vapour pressure : 27 hPa

at (20 °C)

Vapour pressure: 134 hPa

at (50 °C)

Density (at 20 °C): approx. 1,01 g/cm³ Water solubility: Emulsifiable

at (20 °C)

Viscosity / kinematic: 19,1 mm²/s

at (20 °C)

Surface tension: 51 mN/m

10. Stability and reactivity

Conditions to avoid

To avoid thermal decomposition, do not overheat.

Hazardous decomposition products

Irritant/corrosive, flammable as well as toxic distillation gases (carbonization gases).

Additional information

No decomposition if stored and applied as directed.

11. Toxicological information

Acute toxicity

LD50/oral/rat:: 2113 mg/kg LD50/dermal/rat:: > 5000 mg/kg LC50/inhalativ/rat:/4h: > 7,576 mg/l (*) (*) Highest checkable concentration

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Corrosive and irritant effects

Skin irritation (rabbit): Low irritant effect - not necessary to label Eyes irritation (rabbit): Low irritant effect - not necessary to label

Sensitising effects

Local lymph node assay (LLNA) / mouse: Sensitising (OECD 429)

Empirical data on effects on humans

Skin contact with this product may cause cauterisation or prickling sensation without visible skin irritation. Such an effect is to be considered a warning. Further exposure is strictly to be avoided If symptoms do not subside, or other symptoms should appear, seek medical advice.

12. Ecological information

Ecotoxicity

LC50/Rainbow trout/96 h = 0,00047 mg/l (*) EC50/Daphnia magna/48 h = 0,00016 mg/l (*) EC50/Desmodesmus subspicatus/72 h > 10 mg/l (*) (*) cvfluthrin (ISO)

Further information

Do not flush into surface water or sanitary sewer system.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Hazard to waters

13. Disposal considerations

Advice on disposal

Where possible recycling is preferred to disposal.

Can be incinerated, when in compliance with local regulations.

Waste disposal number of waste from residues/unused products

200119 MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL, INDUSTRIAL

AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY COLLECTED FRACTIONS;

separately collected fractions (except 15 01); pesticides

Classified as hazardous waste.

Waste disposal number of contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND

PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by

dangerous substances

Classified as hazardous waste.

Contaminated packaging

Re-using the polluted packaging materials is not allowed.

Contaminated packagings are to be treated like the product itself.

14. Transport information

Land transport (ADR/RID)

ADR/RID class	9
Classification code :	M6
Hazard-no.	90
UN number	3082
Hazard label	9
ADR/RID packing group	Ш

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Limited quantity: LQ 7

Description of the goods

Environmentally hazardous substance, liquid, n.o.s. (cyfluthrin (ISO))

Other applicable information (land transport)

LQ 7: combination packaging: 5 I / 30 kg (total gross mass); trays: 5 I / 20 kg (total gross mass).

Tunnel restriction code: E Transport category: 3

Additional label with symbol "fish and tree" according to subsection 5.2.1.8.3. ADR for single packagings and inner packagings with > 5 kg or 5 L, transition period ends 30.06.2009.

Inland waterways transport

Marine transport

 IMDG code
 9

 UN number
 3082

 Marine pollutant
 P

 EmS
 F-A; S-F

 Limited quantity:
 5 L / 30 kg

 IMDG packing group
 III

 Hazard label
 9

Description of the goods

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Cyfluthrin)

Other applicable information (marine transport)

Limited quantities (section 3.4): combination packaging: 5 l / 30 kg (total gross mass); trays: 5 l / 20 kg (total gross mass).

Additional label with symbol "fish and tree" according to subsection 5.2.1. IMDG Code for single packagings and inner packagings with > 5 kg or 5 L, transition period ends 31.12.2009.

Air transport

ICAO/IATA-DGR	9
UN/ID number	3082
Hazard label	9
IATA-packing instructions - Passenger	914
IATA-max. quantity - Passenger	450 L
IATA-packing instructions - Cargo	914
IATA-max. quantity - Cargo	450 L
ICAO packing group	Ш

Limited quantity Passenger Y914 / 30 kg G

Description of the goods

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Cyfluthrin)

Other applicable information (air transport)

Additional label with symbol "fish and tree" according to subsection 7.1.6.3. IATA/DGR for single packagings and inner packagings with > 5 kg or 5 L.

15. Regulatory information

Labelling

According to EC-regulations the product is to be labelled as follows:

Labelling on the basis of toxicological data (pls. see item 11) and using the conventional method (assessment procedure)

Indication of danger

Xi - Irritant; N - Dangerous for the environment

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Hazardous component(s) to be indicated on label

cyfluthrin (ISO)

R phrases

43 May cause sensitization by skin contact.

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic

environment.

S phrases

02 Keep out of the reach of children.

13 Keep away from food, drink and animal feedingstuffs.

Do not breathe spray.

In case of insufficient ventilation, wear suitable respiratory equipment.

This material and its container must be disposed of as hazardous waste.

61 Avoid release to the environment. Refer to special instructions / Safety data sheets.

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

National regulatory information

Employment restrictions Observe employment restrictions for young people. Observe

employment restrictions for child bearing mothers and nursing.

Water contaminating class (D) 2 - water contaminating

1999/13/EC (VOC) 0 %

Additional information

WHO-classification: III (Slightly hazardous)

16. Other information

Full text of R-phrases referred to under sections 2 and 3

11	Highly flammable.
23	Toxic by inhalation.
28	Very toxic if swallowed.
37	Irritating to respiratory system.

43 May cause sensitization by skin contact.

Very toxic to aquatic organisms.

50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic

environment.

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

53 May cause long-term adverse effects in the aquatic environment.

65 Harmful: may cause lung damage if swallowed.

Repeated exposure may cause skin dryness or cracking.

67 Vapours may cause drowsiness and dizziness.

Further Information

Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.

The information describes exclusively the safety requirements for the product (s) and is based on the present level of our knowledge.

The delivery specifications are contained in the corresponding product sheet.

This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

"(n.a. = not applicable; n.d. = not determined)"

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)

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